News for the VA research community **Vol. 3, No. 10/Oct. 2003**

VA ResearchCurrents

New multiple sclerosis center in Baltimore will help drive national effort

Researchers, clinical staff and visitors with an interest in multiple sclerosis (MS) gathered at the Baltimore VA Medical Center on Sept. 29 for a symposium inaugurating VA's "MS Center of Excellence East." The center, directed by Christopher Bever, MD, chief of neurology for the VA Maryland Health Care System, is a counterpart to VA's new "MS Center of Excellence West," based at the Portland and Seattle medical centers.

The East and West Coast centers, funded by VA at $8 million over four years, will spearhead a national VA consortium for MS care, education, and research covering basic biomedicine, rehabilitation, health services delivery and clinical trials. MS, a chronic, unpredictable disease of the central nervous system, affects some 22,000 VA patients.

The event in Baltimore featured the John Whitaker Memorial Lecture, named for the late chair of neurology at the University of Alabama and staff physician at the Birmingham VA Medical Center. Whitaker, who died in a cycling accident in 2001, had been studying the role of a protein called MBPC8 in demyelinating diseases such as MS. He was a past recipient of the Javits Award from the National Institute of Neurological Disorders and Stroke (NINDS) and had served as president of the American Neurological Association and chair of the medical advisory board of the National Multiple Sclerosis Society.

The Whitaker Memorial Lecture was given by Henry McFarland, MD, director of the Clinical Neurosciences Program at NINDS.

MS affects as many as 350,000 Americans, including about 50,000 veterans. It is most often diagnosed between ages 20 and 50. An autoimmune disease, MS is caused, at least in part, by white blood cells that mistakenly attack the myelin sheath surrounding nerves. Symptoms include weakness, fatigue, numbness and a loss of balance. Medication can help slow the disease's progression, but the condition usually worsens over time, and many patients need to use wheelchairs.

Research advances discussed at the Sept. 29 symposium focused on neuroprotective agents being tested in clinical trials, and the potential role of neuroplasticity—the ability of the central nervous system to "rewire" itself and use new neural pathways when damage occurs—in the rehabilitation of patients with MS. ■

Vision Update

Central Office aims to boost implementation of research results

Each month, this newsletter will highlight key initiatives focused on achieving the new vision for VA Research: "Today's VA Research Leading Tomorrow's Health Care." You are invited to e-mail questions or comments to researchinfo@vard.org.

The Institute of Medicine, in its 2001 publication "Crossing the Quality Chasm," reported that it takes an average of 17 years to incorporate into practice the knowledge discovered in clinical trials. This is one of many recent documentations of a serious gap in the implementation of research results into clinical practice.

The flip side of this problem is that much of medical practice in the United States is not evidence-based. A compelling example comes from a study at the Houston VA Medical Center and Baylor College of Medicine, published last year in the *New England Journal of Medicine.* The study found that patients with osteoarthritis of the knee who underwent sham arthroscopic surgery were just as likely to report pain relief as those who received the real procedure. The results challenged the usefulness of a common medical procedure on which Americans have been spending more than $3 billion each year.

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Recent publications

Due to space constraints, only VA authors and affiliations are noted.

"Anatomical Location of Macrophage Migration Inhibitory Factor in Urogenital Tissues, Peripheral Ganglia and Lumbosacral Spinal Cord of the Rat." Pedro L. Vera, PhD; Katherine L. Meyer-Siegler, PhD. **Bay Pines** (Fla.) *BMC Neuroscience*, Aug. 8, 2003.

"Baclofen Treatment for Chronic Postraumatic Stress Disorder." Lori L. Davis, MD; Marshall E. Cates, PharmD; Michele E. Jewell, MA; Sandra M. Ambrose, RN; Joette S. Lowe, PharmD. **Tuscaloosa.** *Annals of Pharmacotherapy,* Sept. 2003.

"Do Clinical Examination Variables Predict High Plantar Pressures in the Diabetic Foot? James S. Wrobel, DPM; Jennifer L. Dercoli, DPM. **White River Junction** (Vt.) *Journal of the American Podiatric Medical Association*, Sept./Oct. 2003.

"An Inhibitor of Insulin-Degrading Enzyme Decreases Degradation of Insulin and Amylin and Increases Amyloid Formation in Insulinoma Cell Cultures." Robert G. Bennett, PhD; Frederick G. Hamel, PhD; William C. Duckworth, MD. **Omaha** and **Phoenix.** *Diabetes,* Sept. 2003.

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VA Research Currents
is published monthly for the
Office of Research and Development
of the Dept. of Veterans Affairs
by VA R&D Communications
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Lung cancer myth especially common among African Americans

The incorrect belief that lung cancer tumors spread when exposed to air during surgery is particularly common among African American patients, and may be keeping many of them from lifesaving operations, reported VA researchers and colleagues in the Oct. 7 *Annals of Internal Medicine.*

Mitchell L. Margolis, MD, and his team surveyed 626 pulmonary and lung-cancer patients in clinics at the Philadelphia and Los Angeles VA medical centers, University of Pennsylvania, and Medical University of South Carolina in Charleston.

They found that 61 percent of African Americans and 29 percent of whites believe that exposure to air during surgery causes a tumor to spread. Nearly 20 percent of African Americans said they would decline surgery because of this belief, compared to 5 percent of whites. Moreover, 14 percent of African Americans said they would not accept a physician's assertion that the belief is false. Few patients indicated the source of their belief and those who did were vague about it.

The scientific validity of the belief is highly questionable, according to Margolis, director of the pulmonary clinic at the Philadelphia VAMC and an investigator with VA's Center for Health Equity Research and Promotion.

Lung cancer is more prevalent and deadly among African Americans than whites. Much of the difference is attributed to differences in the treatment of early-stage disease. Margolis said the myth explored in his study may be a factor in this disparity, and that education on the topic might help improve outcomes for African American lung-cancer patients.

VA ethnic-disparities research featured

The October issue of the *American Journal of Public Health* is sponsored by VA's Center for Health Equity Research and Promotion (CHERP) and the Center for Minority Health (CMH) at the University of Pittsburgh. It presents research highlights from the third-annual National Minority Health Leadership Summit, held in Jan. 2003.

An article by Kathleen McGinnis, MD, shows that mortality for veterans with HIV varies by race and explores possible reasons for this variation. Said Ibrahim, MD, MPH, and colleagues examine the role of physician bias in racial disparities in the treatment of cardiovascular disease. Vincent Freeman, MD, focuses on the causes of previously documented racial disparities in prostate cancer mortality in VA and non-VA settings. Somnath Saha, MD, MPH, and colleagues examine whether racial differences in satisfaction with health care and use of basic health services are explained by differences in the quality of patient-physician interactions, physician cultural sensitivity, or patient-physician race concordance. Nancy Kressin, PhD, quantifies the rates of agreement between VA administrative and self-reported race and ethnicity data.

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RESULTS (cont. from pg. 1)

As an early response to this growing problem, VA in 1998 established the Quality Enhancement Research Initiative (QUERI), a Health Services Research and Development program designed to boost the implementation of research results and improve quality of care and patient outcomes. Since then, eight QUERI centers—each focused on a disease common to veterans—have worked to identify evidence-based procedures and other best practices and promote their implementation throughout the VA system.

To further this effort, VA's Office of Research and Development (ORD) this spring convened a Blue Ribbon National Advisory Panel on research implementation. The panel was charged with forging recommendations on improving organizational structure to facilitate implementation of research results, and developing methods to recruit investigators with expertise in this area.

Based on the Blue Ribbon Panel's recommendations, ORD is pursuing the following five initiatives:

1. Research Implementation Program—ORD will create a new Research Implementation Program within VA Central Office. ORD proposes to fund this unit with $300,000 annually and staff it with two full-time employees. The unit will have five main functions:

• Coordinate research-implementation efforts by ORD, researchers and clinical and administrative leadership at medical centers and Veterans Integrated Service Networks;

• Work toward integrating clinical and health-services research;

• Develop an implementation curriculum tailored to VHA management;

• Build on the work of the blue-ribbon panel in identifying organizational changes that will support the implementation of research results, and assist VA's chief research and development officer in enacting these changes through the National Leadership Board;

• Provide portfolio management and administrative support for non-QUERI-related research-implementation studies.

2. Expansion of capacity for implementation science—Since implementation science is still an emerging field, ORD is planning to develop or recruit staff to advance its knowledge in this area. To support this goal, ORD will be funding new collaborations between VA research sites and academic partners with expertise in implementation research. The proposal calls for $100,000 annually renewable awards. ORD expects to fund five new awards per year.

3. VISN Collaboration Research Implementation Planning Awards—These six-month, $50,000 planning awards will fund partnerships between VISNs and investigators that result in proposals to implement and evaluate an evidence-based intervention within the VISN. Alternately, the proposal can identify organizational changes within the VISN that will facilitate future implementation of research results. Following the planning process, full proposals for $300,000 per year for three years may be submitted to support a VISN-based implementation effort. Each VISN will be expected to contribute an equal amount in either funds or in-kind support. ORD plans to fund five new proposals each fiscal year.

4. Centers of Excellence on Management, Organization, and Implementation Research—ORD will establish up to three centers of excellence focusing on disciplines critical to implementing evidence-based practices within health care systems. Three centers will be funded at a proposed $700,000 per year.

5. Implementation Methods Research Solicitation—Health Services Research and Development will be issuing a solicitation for theory- and methods-focused research applications on implementation. This solicitation will be funded at a proposed $1.5 million per year.

For more information on any of these initiatives, contact Pauline Sieverding, PhD, at (202) 254-0249 or pauline.sieverding@hq.med.va.gov. ■

PUBLICATIONS (cont. from pg. 2)

"Mutations in ENPP1 Are Associated with Idiopathic Infantile Arterial Calcification." Sucheta Vaingankar, PhD; Robert Terkeltaub, MD. **San Diego.** *Nature Genetics,* Aug. 2003.

"Prophylactic Antibiotics in Plastic Surgery: Trends of Use Over 25 Years of an Evolving Specialty." Wyatt G. Payne, MD; Martin C. Robson, MD. **Bay Pines** (Fla.) *Aesthetic Surgery Journal,* May/June 2003.

"Racial Differences in Health Care Utilization Among Patients with Osteoarthritis." Kelli Dominick, PhD; Tara Dudley, MStat; Steven C. Grambow, PhD; Eugene Z. Oddone, MD, MHS; Hayden B. Bosworth, PhD. **Durham.** *Journal of Rheumatology,* Oct. 2003.

"Reelin Promotes Peripheral Synapse Elimination and Maturation." Dennis R. Mosier, MD, PhD. **Houston.** *Science,* Aug. 1, 2003.

"Whose Quality of Life? A Commentary Exploring Discrepancies Between Health State Evaluations of Patients and the General Public." Peter A. Ubel, MD. **Ann Arbor.** *Quality of Life Research,* Sept. 2003. ■

Career milestones

George H. DeVries, PhD, a career research health scientist at the Hines (Ill.) VA Medical Center and professor of medicine at Loyola University, was installed as president of the American Society for Neurochemistry for a two-year term. DeVries has been an active member of the group since he began his neurochemistry career in 1970. His current research interests include neuron-glial signaling as it relates to myelination; signaling in specialized regions of the axonal membranes; and molecular mechanisms of Schwann cell proliferation in type 1 neuro-fibramatosis, a hereditary disorder of the nervous system.

Hajime Tokuno, MD, West Haven, received the James J. Peters Memorial Spinal Cord Injury (SCI) Scholar Award. The award, sponsored by VA and the Eastern Paralyzed Veterans Association, will support Tokuno's investigation of the recovery of spinal cord axons in rats following injury-related demyelination.

New gel could serve as artificial human lens

Bioengineers at the St. Louis VA Medical Center and Washington University have developed a soft, jellylike material they say could replace the lens in the eyes of aging patients with farsightedness, restoring their vision to normal.

The water-based polymer is physically and mechanically like a natural human lens, say the researchers, and is designed to be biocompatible with the interior of the eye. Because of its reversible chemical bonds, the gel could be injected into the eye as a liquid through a tiny incision requiring no stitches. It would then reform as a gel under normal physiological conditions.

"By creating a material that is soft, viscoelastic, dimensionally stable, clear, nontoxic and injectable, we should be able to replace the aging human lens with a material that will act as a healthy young lens with a minimal surgical procedure," said VA ophthalmologist Nathan Ravi, MD, PhD, in an interview with United Press International.

Findings were presented by team member Madalene Fetsch at the annual meeting of the American Chemical Society in September. The research team plans to begin testing the material in animals next year. ■

DISPARITIES (continued from page 2)

Overall, the journal content reflects a shift in this area of research from documenting disparities to understanding causes and developing and implementing interventions.

"Taken together, [the work presented here] provides a snapshot of where we are and where we need to go in our research and advocacy to eliminate disparities in health and health care," said Ibrahim, a CHERP investigator and co-editor of the issue along with CHERP director Michael Fine, MD, MSc, and CMH director Stephen Thomas, PhD. ■

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